



Espacenet

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improvements relating to hypodermic injection apparatus

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- GB 728248 (A)
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View all

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728,248. Hypodermic syringes. ROOSEBOOM, A. Nov. 26, 1952, No. 2,981,252. Class 81 (2). An automatic injection device comprises power means which cause projection of the needle and which are disengaged from the medicament container support after a predetermined travel has been effected. In one form a tube 29, carrying a needle 27 at one end, is normally held against movement by a latch 34<1> engaging a notch 31. The further end of this tube bears against the plunger 43 of an ampoule 42, the edge of which is engaged by pawls 45 and which is urged towards the left by a spring 35 bearing on a tubular support 36 which presses against the rear side of the lip 41 by further pawls 40. When the projecting cap 20 is removed, the latch 34<1> is free to be moved and if it is released, the entire ampoule and needle assembly is moved to the left by the spring 35. After a predetermined movement, however, the pawls 45 engage the edge of a tube 49 and are closed inwards thereby so that the ampoule is no longer held by them, but is moved onwards by spring 35, relative to the plunger, to expel the medicament. As this operation is completed, the outer pads on pawls 40 slide outwardly on the chamfer 55, at the end of tube 34, so that the spring 35 is thus completely disconnected from the ampoule, which is free to move backwards under the action of a light spring 48, the needle being withdrawn at the same time. In order to insert a fresh ampoule the tube 34 is detached from the body member 51, by a bayonet or similar fastening, the spent ampoule is taken out, a fresh one is placed in position against the pawls 45, the side of the ampoule is inserted between the pawls 40, which are drawn inwards by pressing the body 36 into the tube 34. The body 51 and tube 34 are then pressed together, thereby compressing the spring 35 until the bayonet connection can be re-engaged. In modifications, balls may replace the pawls 40 and a double ended ampoule may be used, the plunger being thrust forward by a cylindrical member on a tubular device corresponding to the holder 36.



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